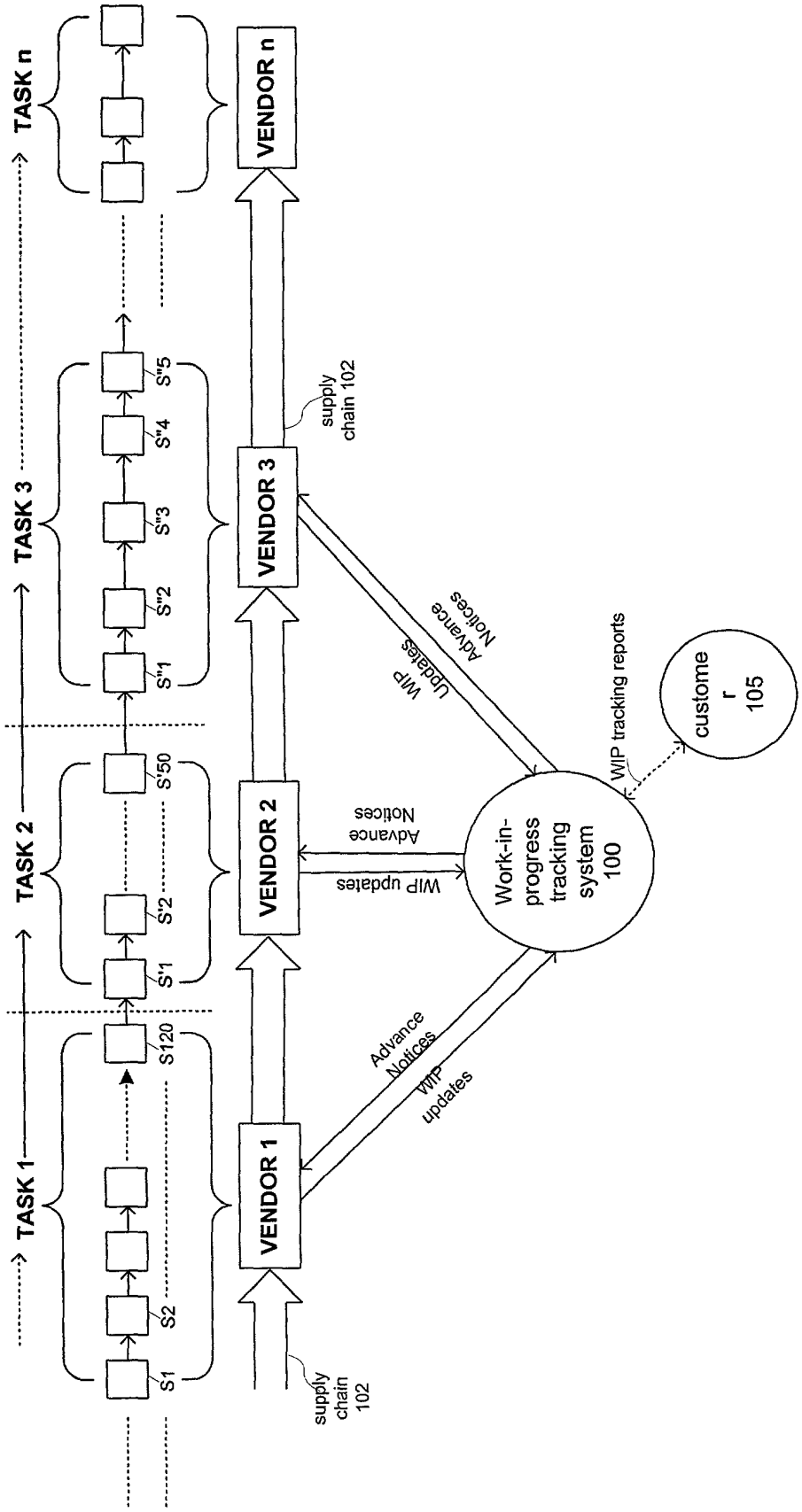

TASK 1
TASK 2
TASK 3
TASK n
S1
S2
S120
S'1
S'2
S'50
S''1
S''2
S''3
S''4
S''5
VENDOR 1
VENDOR 2
VENDOR 3
VENDOR n
supply chain 102
supply chain 102
Advance Notices
WIP updates
WIP updates
Advance Notices
Work-in-progress tracking system 100
WIP tracking reports
custome r 105

FIG. 1

Phase	Vendor	Estimated Time (Days)
Order Processing	ASIC Provider	3
GDSII Preparation	ASIC Provider	19
Fabrication	Fab	61
Probe Card Making	Test/Assembly House	56
Package Design	Test/Assembly House	56
Wafer Transfer	Freight Forwarder	1
Packaging	Test/Assembly House	3
Parts Transfer	Freight Forwarder	1
Test & Debug	ASIC Provider	5
Parts Transfer	Freight Forwarder	1
TOTAL		**94**

FIG. 2A

Title: Prediction Based Optimization of a Semiconductor Supply Chain Using an Adaptive Real Time Work-in-Progress Tracking System
Applicants: Michael E. Orshansky and Klaus ten Hagen
Docket No.: 22272-06093

Phase	Vendor	Estimated Time(Days)
Order Processing	Fabless ASIC Provider	5
Fabrication	Foundry	68
Wafer Transfer	Freight Forwarder	1
Package/Test	Test/Assembly House	15
Parts Transfer	Freight Forwarder	1
TOTAL		**90**

FIG. 2B

Step No.	Step Name	Step Group
1	WAF-1	Wafer Start
9	TRCH1-CMP	Wafer Start
11	SAC1-OX	Wafer Start
25	PO1-DP	Gate Mask
27	PO1-ET	Gate Mask
63	ME1-PH	Metal 1
64	ME1-ET	Metal 1
76	VA2-CMP	Metal 3
76	VA2-CMP	Metal 3
117	PA1-PH	Metal 6
120	WAT 2-1	WAT
121	SORT	SORT

FIG. 2C

	Customer Order 1	Customer Order 2
Time Stamp	12:20 am, 06/20/01	12:20 am, 06/20/01
Foundry ID	5910	5920
Lot 1D	5910-1	5920-2
Current Step	WAF1-START	WAF1-START
Current Quantity	25	25
....	...	...

FIG. 2D

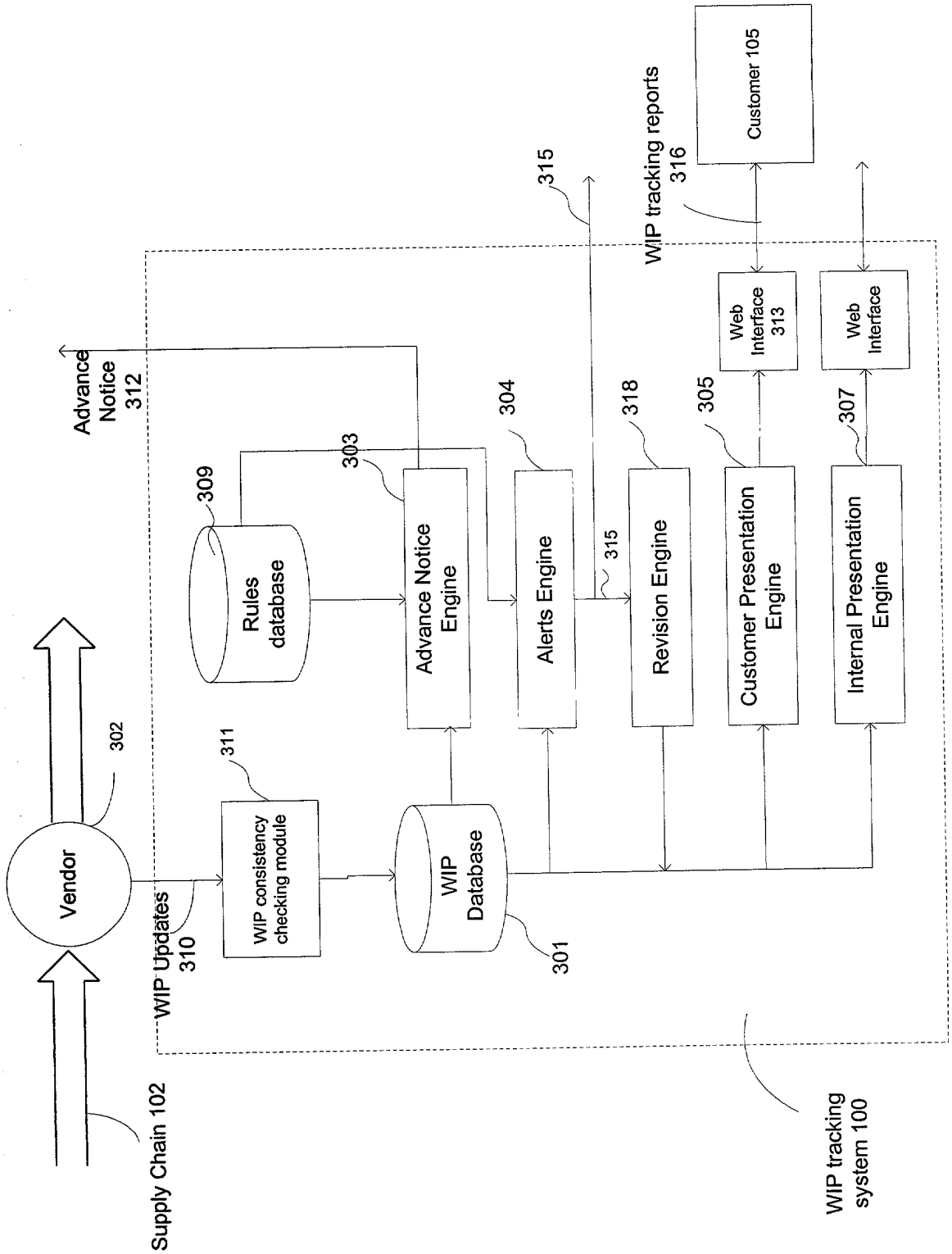

Supply Chain 102
Vendor
302
WIP Updates
310
311
WIP consistency checking module
WIP Database
301
309
Rules database
303
Advance Notice Engine
Advance Notice 312
304
Alerts Engine
315
318
Revision Engine
305
Customer Presentation Engine
307
Internal Presentation Engine
315
WIP tracking reports
316
Web Interface 313
Web Interface
Customer 105
WIP tracking system 100

FIG. 3

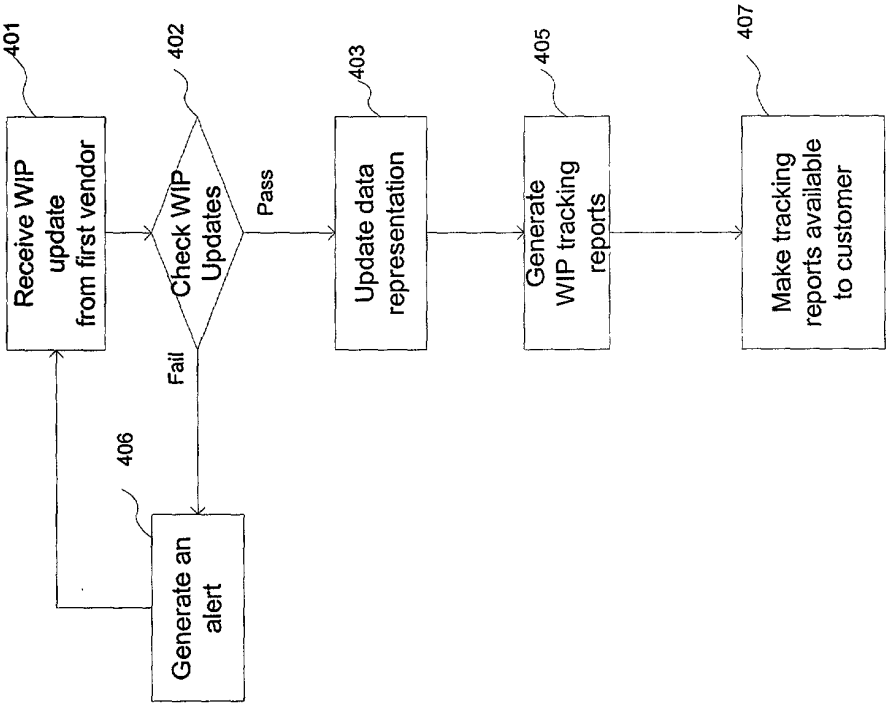

401
Receive WIP update from first vendor
402
Check WIP Updates
Pass
Fail
403
Update data representation
405
Generate WIP tracking reports
407
Make tracking reports available to customer
406
Generate an alert

FIG. 4

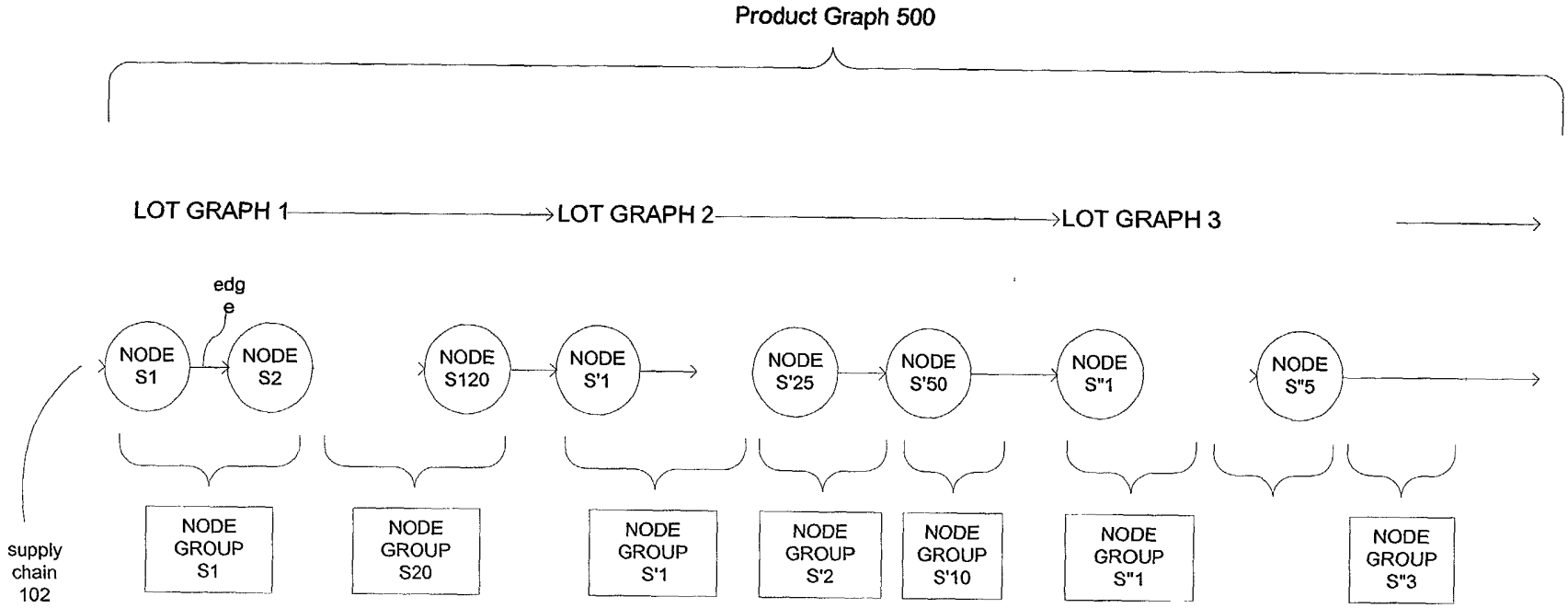


FIG. 5

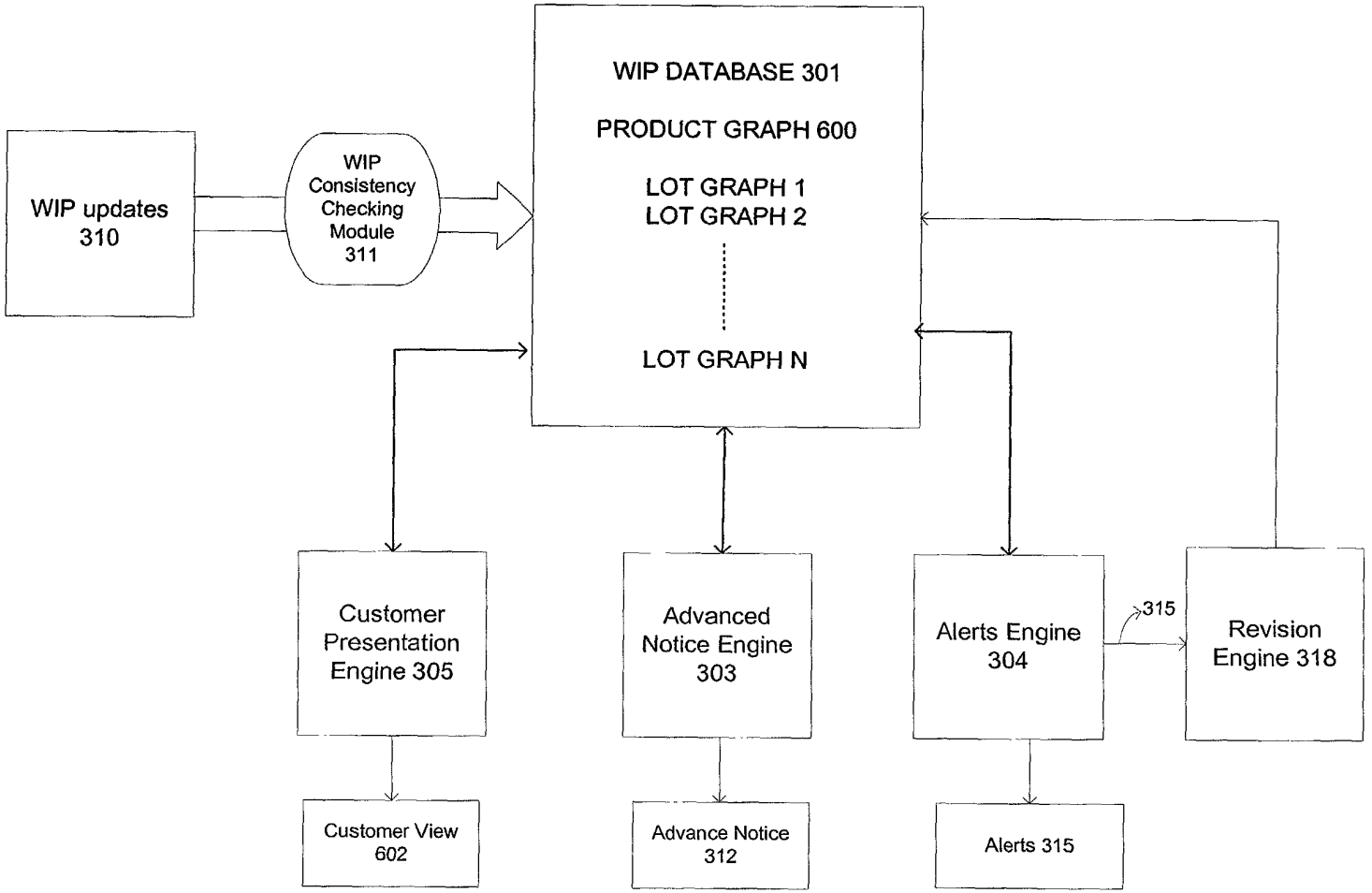


FIG. 6

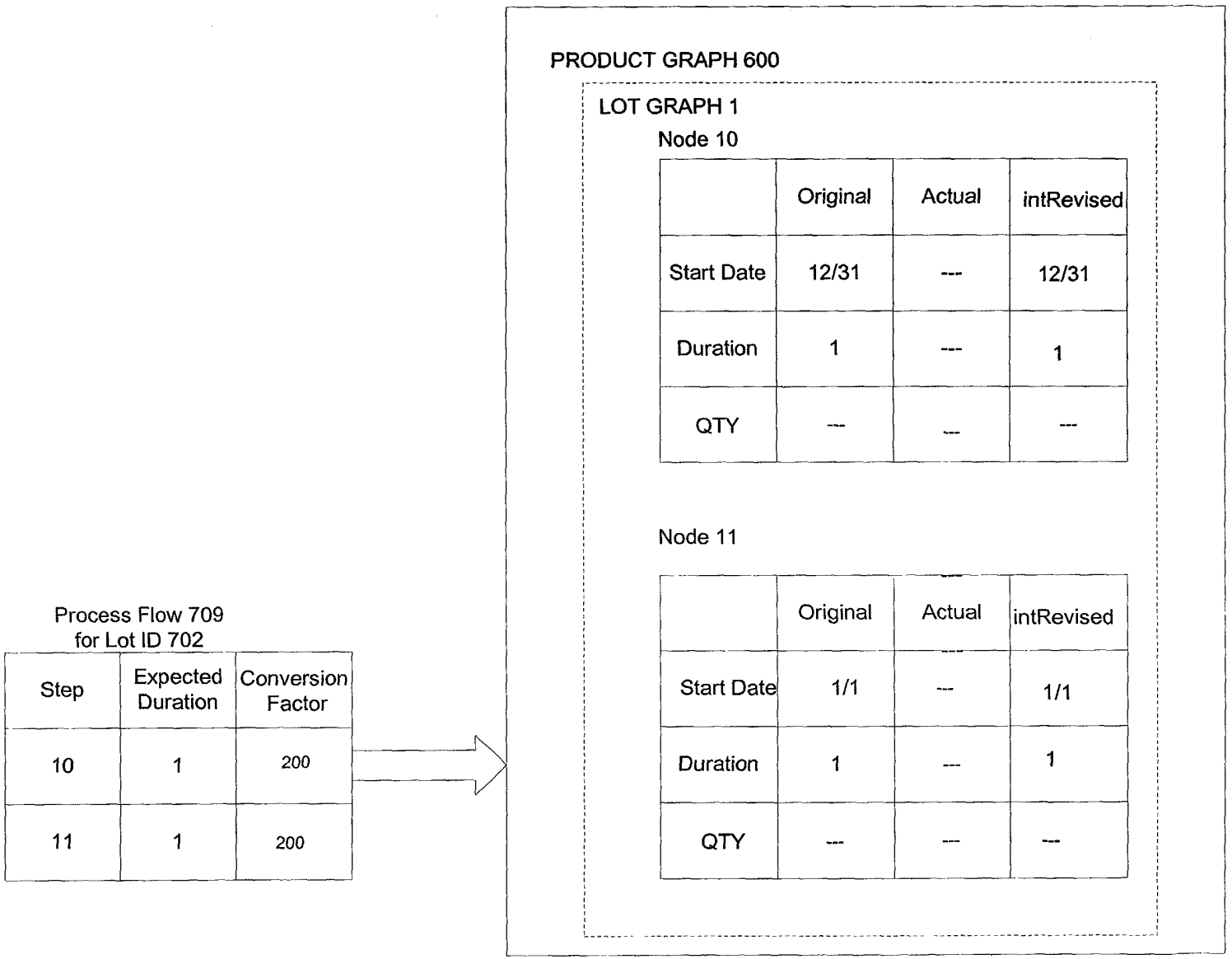


FIG. 7A

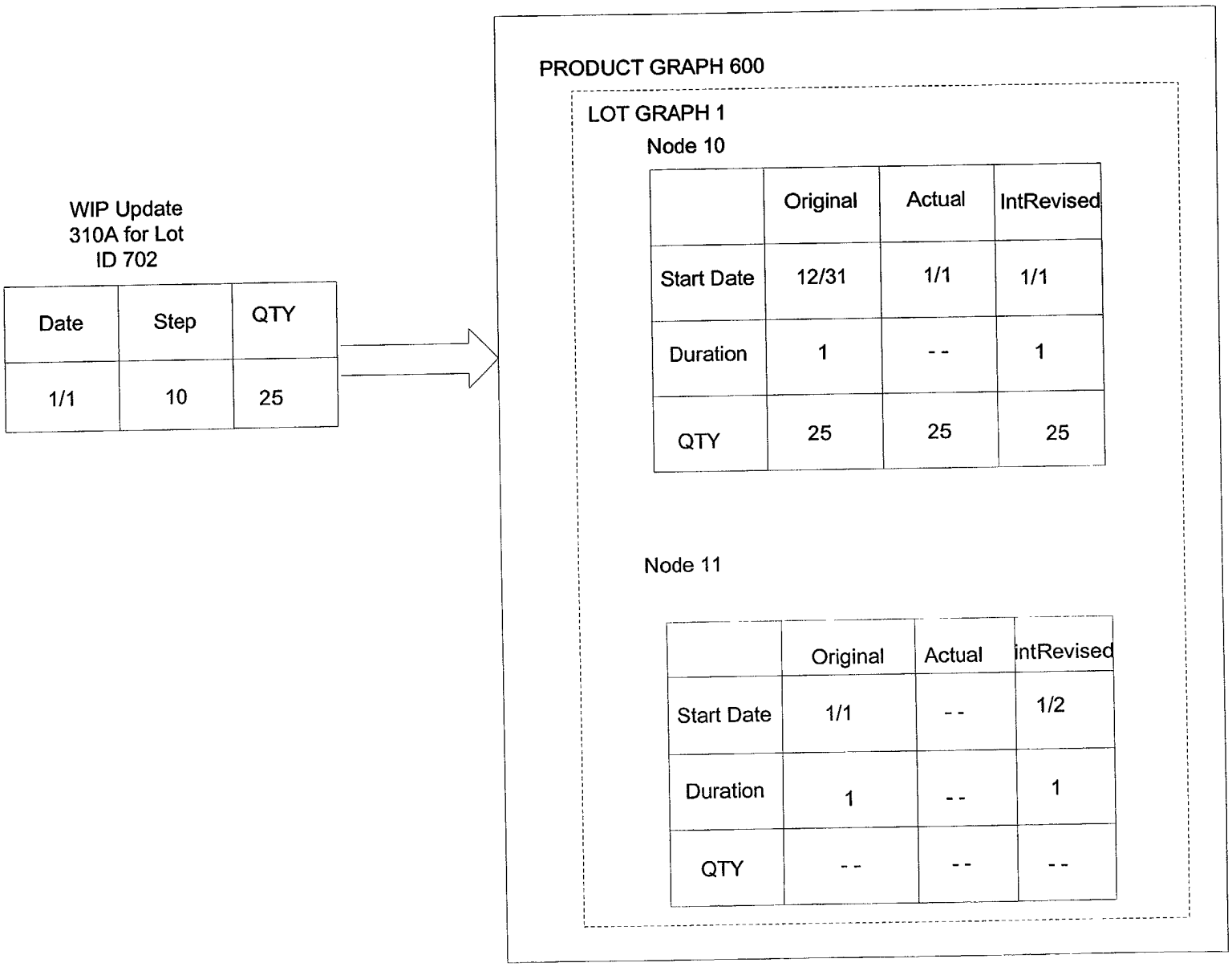


FIG. 7B

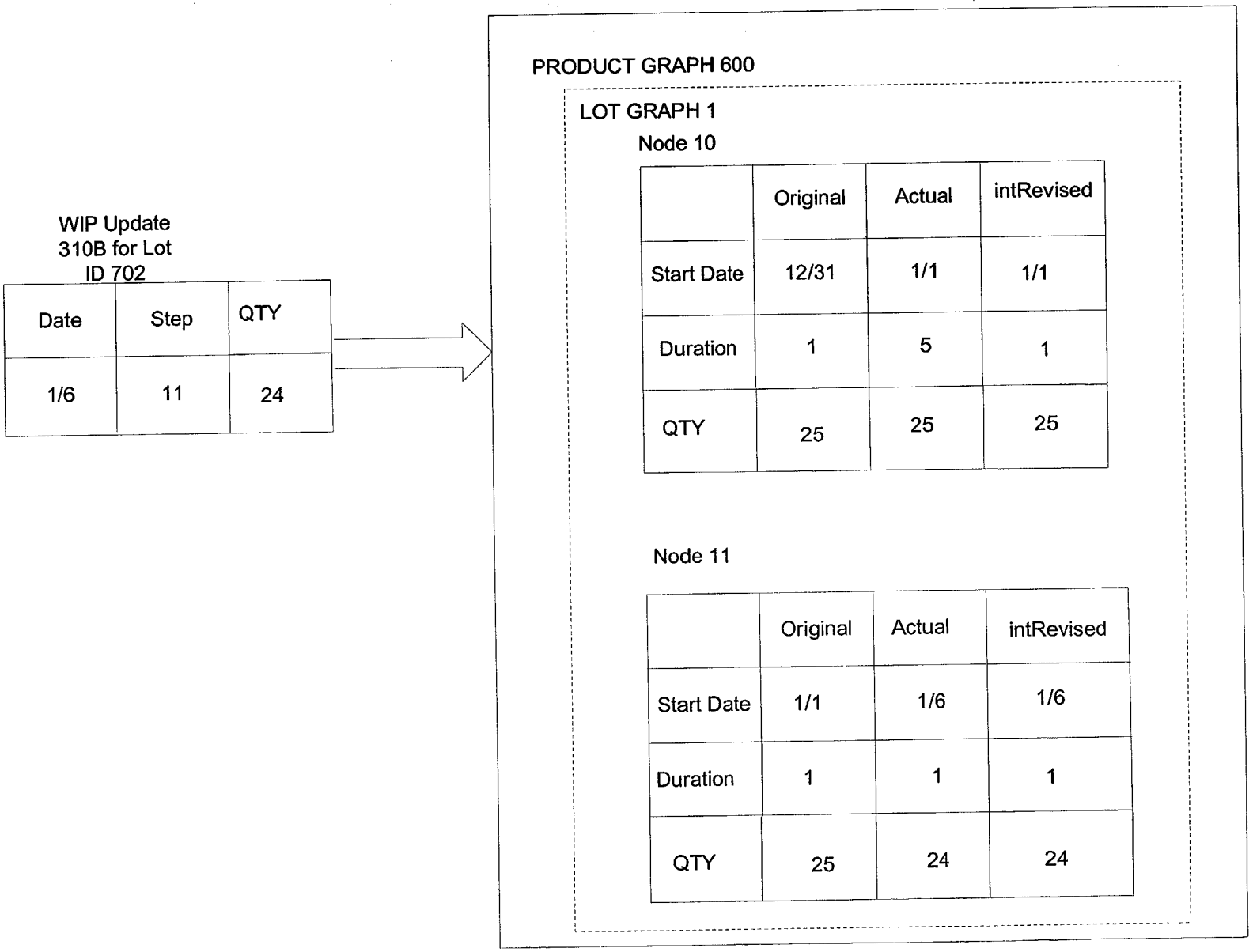


FIG. 7C

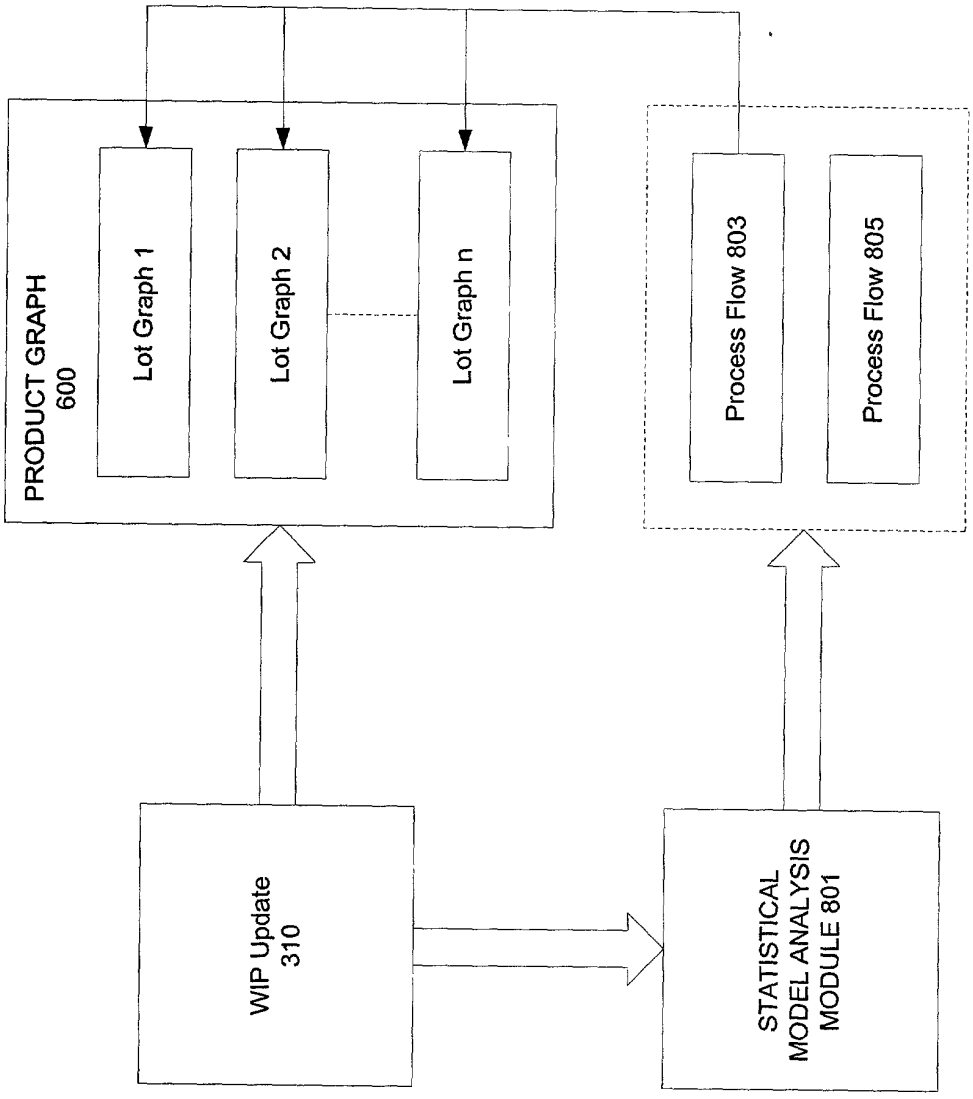


FIG. 8

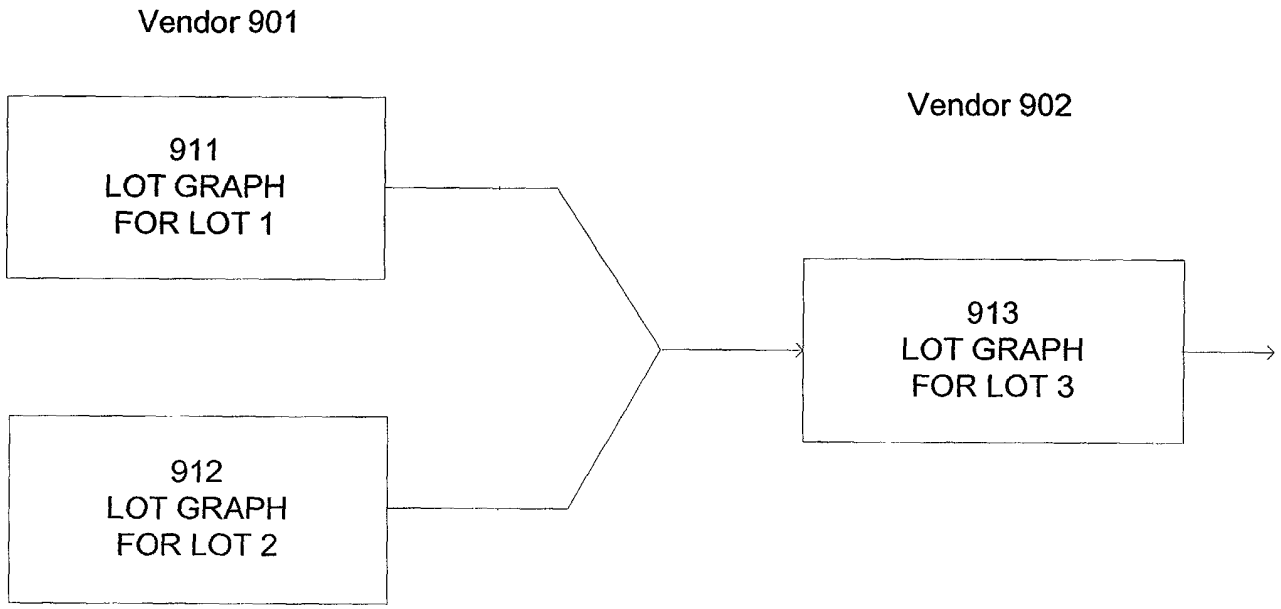


FIG. 9

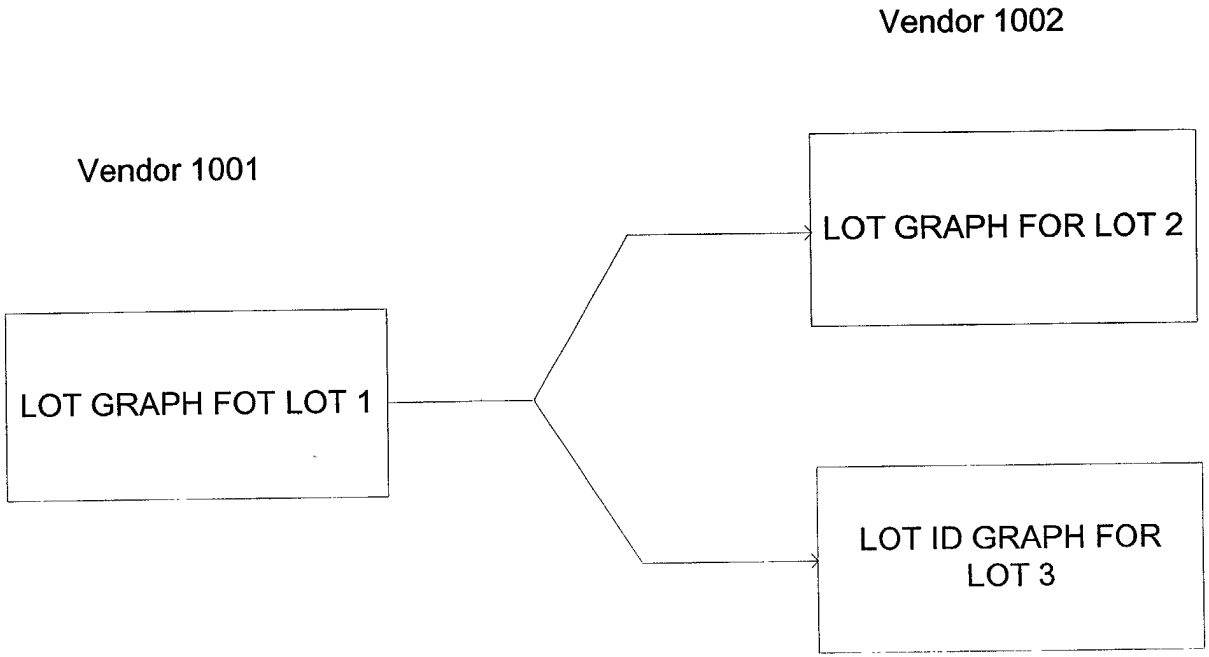


FIG. 10

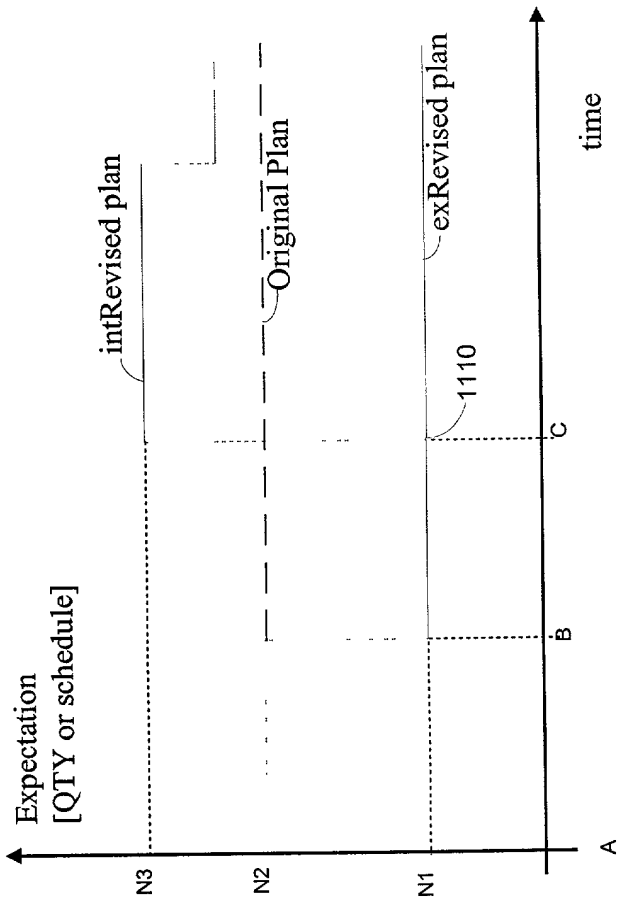
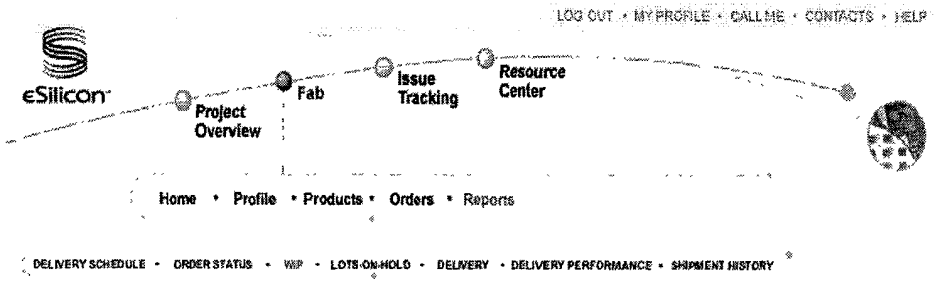


FIG. 11

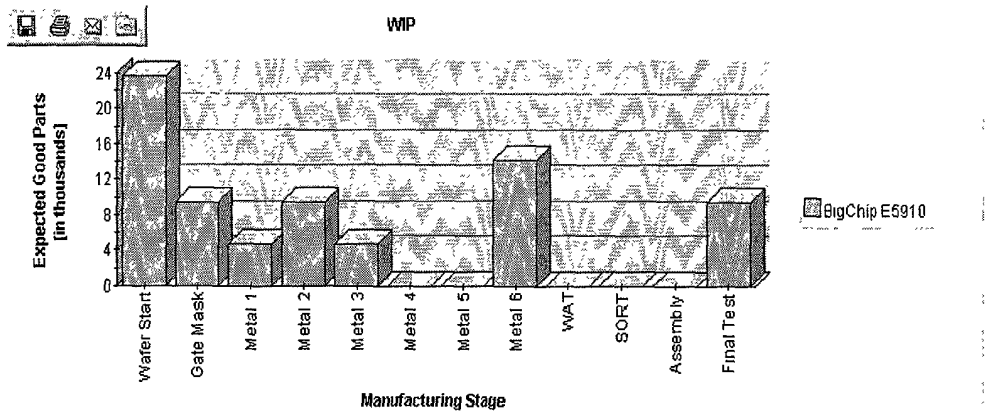


Work In Progress

Download as CSV

Customer Part #	Customer Product	Foundry										Assembly	
		Wafer Start	Gate Mask	Metal 1	Metal 2	Metal 3	Metal 4	Metal 5	Metal 6	WAT	SORT	Assembly	Final Test
BC-E6910	BigChip E6910	23,750	9,500	4,750	9,500	4,750	0	0	14,250	0	0	0	9,500

- All quantities are in "Parts"
- Quantities displayed in red indicate lot on hold



Report Last Updated: Thu Jul 19 10:58:57 PDT 2001

eSilicon Access 1.0 - Work In Progress Application (Build 9 2001-07-13) Fri Jul 20 09:42:02 PDT 2001

FIG. 12A

Title: Prediction Based Optimization of a Semiconductor Supply Chain Using an Adaptive Real Time Work-in-Progress Tracking System
Applicants: Michael E. Orshansky and Klaus ten Hagen
Docket No.: 22272-06093

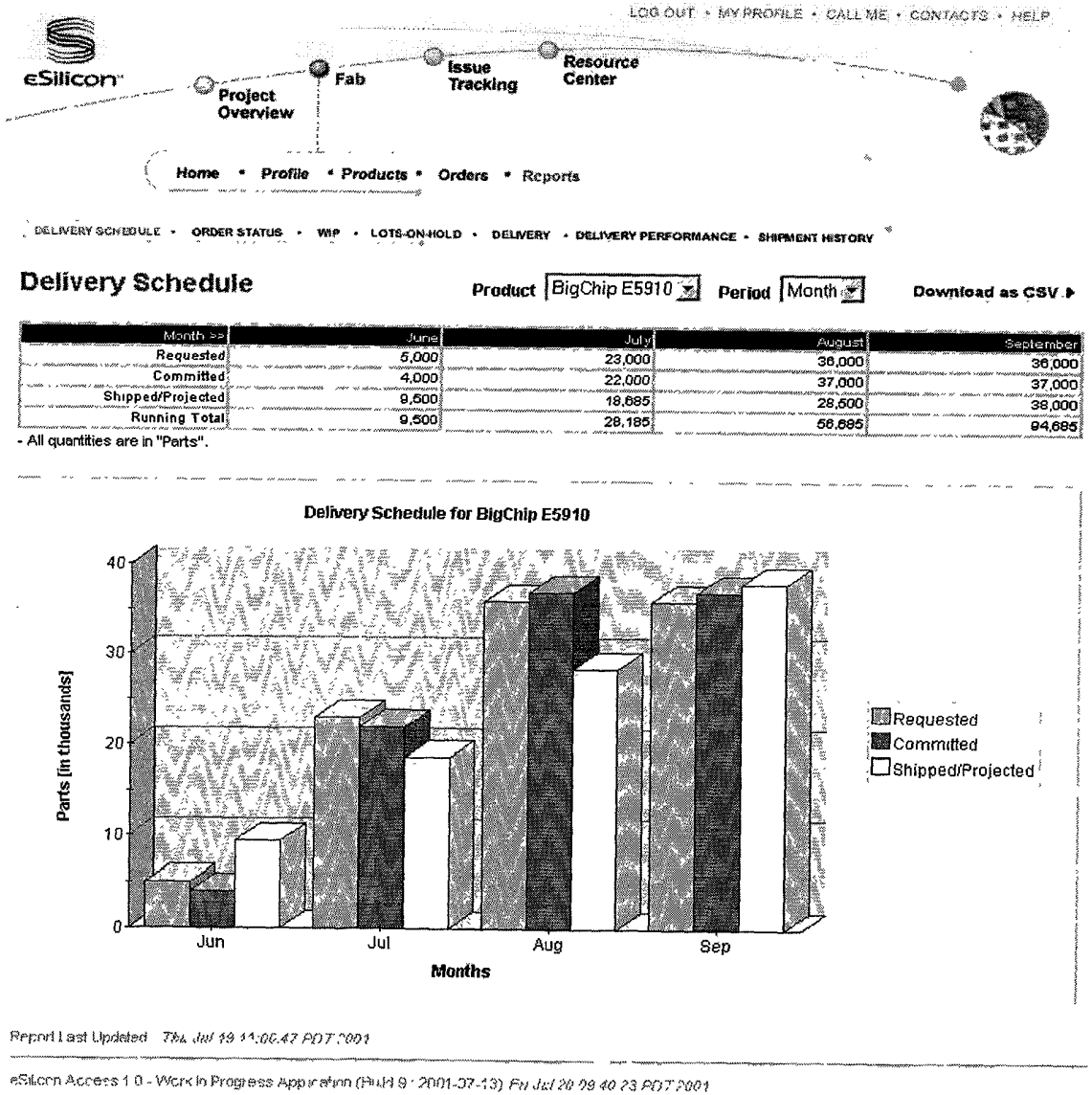


FIG. 12B

Title: Prediction Based Optimization of a Semiconductor Supply Chain Using an Adaptive Real Time Work-in-Progress Tracking System
Applicants: Michael E. Orshansky and Klaus ten Hagen
Docket No.: 22272-06093

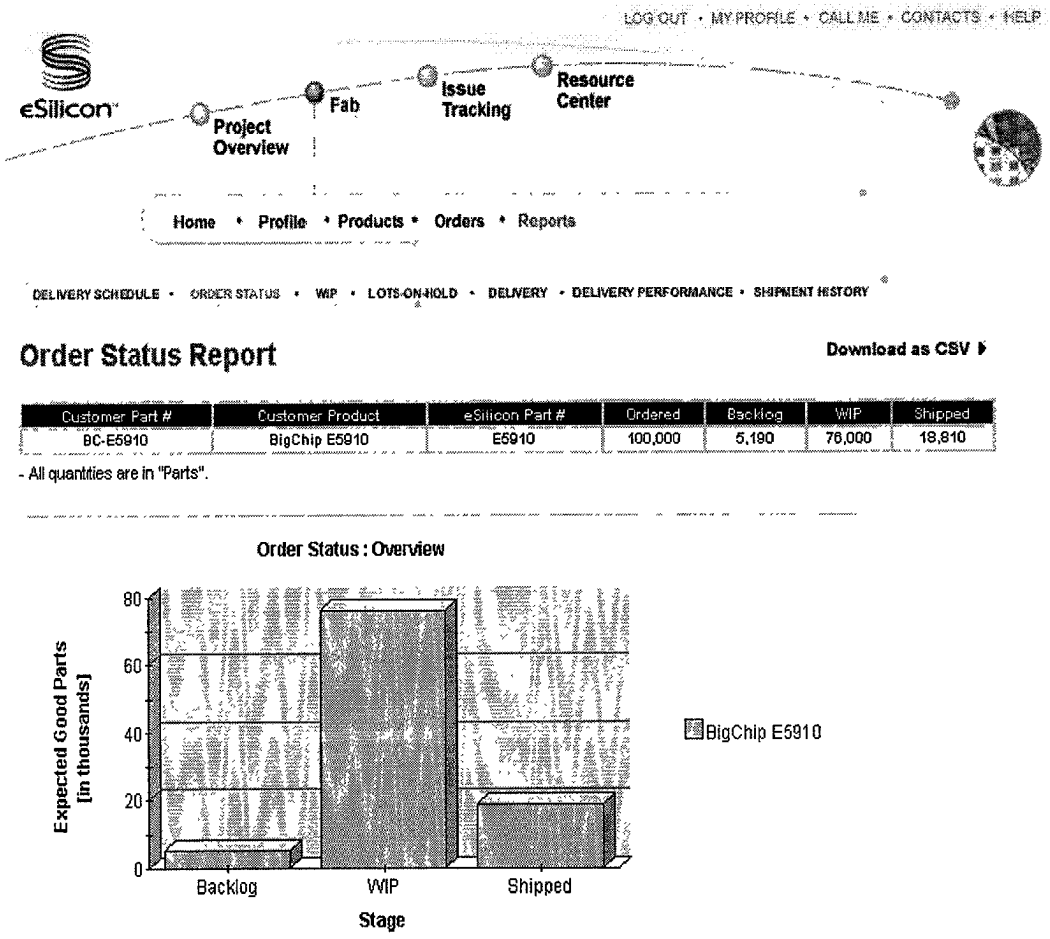


FIG. 12C

Title: Prediction Based Optimization of a Semiconductor Supply Chain Using an Adaptive Real Time Work-in-Progress Tracking System
Applicants: Michael E. Orshansky and Klaus ten Hagen
Docket No.: 22272-06093